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Poverty Profiles of Sylhet City Corporation: An MPI Approach

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Abstract

Does income measure of poverty explain it meticulously? To seek this answer we claim poverty is not a unidimensional phenomenon rather it adheres multidimensionality. Sen (2000) views poverty as the deprivation of certain basic capabilities, which varies from elementary physical nourishment to the community life. However, targeting slum dwellers, this article sought to advance multidimensional poverty measures in SCC (Sylhet City Corporation). The study adopts a mixed method approach to examine so. Finding shows that, there are some variations in the percentage of poor households. In terms of income and expenditure 60% households are identified as poor but in MPI number increases to 75%. Data from in-depth interview exhibits that respondents feel themselves as income poor. Some of them consider deprivation of education is the consequence of that income poverty. In addition, few respondents dimple that health problems and physical disabilities mingle their poverty experiences.

Keywords: Poverty, Wellbeing, Multiple Poverty Index, capability, Bangladesh

Introduction

Most people have an idea of what it means to be poor. Generally, we think of conditions like hunger, homelessness, unemployment, and illiteracy as elements of poverty. Though, from a social and economic standpoint, poverty — most intractable social and economic problems — is difficult to describe in objective terms. Many governments and social service agencies have their own definitions of poverty, including how it is measured and who is considered poor (Nancy, 2006, p. 1; Wagle, 2008, p. 1). But, most of those countries defined poverty in a unidimensional way focus on economic

factors — using income or consumption level — with the implicit assumption that the lack of economic well-being and poverty are synonymous. While, poor people go beyond the income in defining their experience of poverty. Absence of quality of life — such as health, nutrition, household environment, adequate physical and mental development, and the like — can also influence the experience of poverty. For example, a person or household may not be considered as poor in terms of income, but he/she may be suffering from scarcity of safe drinking water, which influence his/her experience of poverty, vice versa. Hence, no one indicator alone can capture the multiple aspects that constitute poverty (Wagle, 2008, p. 4; Alkire & Santos, 2010; OPHI, 2013).

Theory

Uddin (2015) conceives the idea that the use of subjective definition of poverty is fairly a new development in poverty researches. Subjective poverty is contextual and requires participatory methods to explore it. Uddin also mentioned the subjective poverty as 'felt poverty'. Hence, subjective poverty helps us to understand how people experience poverty in the course of their social life.

The capability approach, introduced during the 1980s by Amartya Sen, shifted or more importantly broadened the focus from narrowly defined economic welfare to more comprehensive, freedom, and human well-being (Wagle, 2008; Hick, 2012; Odekon, 2006). This approach — which pertains to a long line of reflection, advanced by Aristotle, Adam Smith, Karl Marx, John Stuart Mill, and John Hicks among others— argues that well-being should be conceived directly in terms of functioning and capabilities instead of resources or utility, and capability deprivation captures the true notion of poverty that people experienced in everyday lives (Sen, 2000, p. 87-111; Alkire, 2015; Wagle, 2008, p. 30).

From a capability perspective, poverty is viewed as the deprivation of certain basic capabilities, and these can vary from such elementary physical ones as being nourished, being adequately clothed and sheltered, avoiding preventable morbidity and so forth, to more complex social achievements such as taking part in the life of the community, being able to appear in public without shame, and so on (Hick, 2012). The capability approach also questions the central role often afforded to income in poverty measurement. For example, the unidimensional measures of poverty or more precisely in the case of the economic well-being approach, whether to use income, consumption, wealth, or subjective views to determine one's poverty status is debatable because the issues relating to capability and freedom are highly abstract, they are difficult to operationalize for practical application (Hick, 2012; Wagle, 2008, p. 9-10). Sen draws a distinction between capabilities a

person has and their income. Capabilities as the direct concept of poverty focus on cases where living standard fall below a certain point, while income as the indirect concept of poverty focus on cases where resources fall below a certain point (Hick, 2012). Batana (2008) said that, since the seminal work of Sen (1976; 1985; 1992; 1995), well-being and poverty are now seen as multidimensional phenomena.

To capture this multidimensional aspect of deprivations, in 2010, the Oxford Poverty and Human Development Initiative (OPHI) has developed a new international measure of poverty — the Multidimensional Poverty Index or MPI — for the 20th anniversary year of the United Nations Development Programme's flagship Human Development Report (UNDP: HDR-2010) which directly measures the combination of deprivations that each household experience. The new MPI supplants the Human Poverty Index or HPI used in previous *Human Development Reports* (UNDP HDR, 2010; Alkire & Santos, 2010). We use the MPI approach of OPHI to measure the multidimensional poverty scenario of SCC in Bangladesh.

Data and Method

Sylhet is a northeastern district town in Bangladesh. Unlike the megacity Dhaka, the existence and amount of slums and squatters in SCC is less and different in cultural, social and economic factors. In this research, convenience sampling is used to collect data with a sample size of 78. Because of lack of the exact household list of squatter citizen in SCC, it is very hard to draw a probability sampling. To analyze multidimensional poverty we used a multidimensional poverty index based on A-F (Alkire-Foster) method, alongside we used percentage and frequency distribution for quantitative portion; and analyzed qualitative portion by thematic technique using 18 in-depth interviews. The table below explains three dimensions of potential poverty deprivations, with 10 indicators, which eventually construct the composite score for MPI.

Table 1: Multidimensional Poverty Index

Dimension	Indicators	Deprived	
		Yes	No
Education	Years of Schooling		
	Child Enrolment		
Health	Child Mortality		
	Food Security		
Standard of Living	Electricity		
	Drinking Water		
	Sanitation		
	Floor		
	Cooking Fuel		
	Assets		

Source: (Alkire & Santos, 2010)

The MPI has three dimensions: health, education, and standard of living. These are measured using 10 indicators. Each dimension is equally weighted. Thus each dimension have a weighted value of $\frac{1}{3}$ and each dimension value are equally distributed to its items. Hence, for education each indicator value is $\frac{1}{6}$, for health each indicator value is $\frac{1}{6}$, and for standard of living each indicator value is $\frac{1}{18}$.

Then the highest value of MPI for a respondent is = $\{(\frac{1}{6} + \frac{1}{6}) + (\frac{1}{6} + \frac{1}{6}) + (\frac{1}{18} + \frac{1}{18} + \frac{1}{18} + \frac{1}{18} + \frac{1}{18} + \frac{1}{18})\} = 1$

And, the lowest value of MPI for a respondent is= 0.

Hence, total index value is ranges between 0 to 1.

If one person's total weighted value is above 0.30 or 30% we can identify this respondent as multidimensionally poor (Alkire & Santos, 2010).

Finally, the MPI value for total population is, M_0= MPI= $\frac{1}{n}\sum_{i=1}^{n} c_i$ (k)

M_0 can be expressed as a product of two components: the share of the population who are multidimensionally poor or Multidimensional Headcount Ratio (H) and the average of the deprivation scores among the poor only (A).

Technically,

M_0= MPI= $\frac{q}{n} \times \frac{1}{q}\sum_{i=1}^{n} c_i$ (k) = $H \times A$

Where,

M_0= MPI value,

n= the number of respondents

q= the number of poor

$\sum_{i=1}^{n} c_i$ (k)= the sum of deprivation value of each respondents who are poor (BMPI, 2012).

Multidimensional Poverty Scenario

Collected data reveal that, 75% households are multidimensional poor (H%) who is squatter citizen or live in a slum in Sylhet city. And, the average intensity of poverty (A%) is 51.85% that is households who are multidimensional poor are deprived in average 51.85% of different 10 indicators of MPI. Since MPI is the product of the percentage of poor people (H) and the average intensity of poverty (A), it yields an index of 0.389, which explains that if 1/3rd (1/3= 0.33 ≈ 0.389) people who lived in squatter or slum in Sylhet city corporation experience deprivations in all indicators the index value M_0 would be 0.389 (Table-2).

Table 2: Multidimensional Poverty Index Value

Poverty Cutoff (k)	Index	Value
K value = 33%	M_0*	0.389
	Percentage of poor household (H %) **	75%
	Average intensity of poverty (A %) ***	51.85%

*M_0 = Multidimensional poverty index value or The MPI.
**Percentage of poor household (H%) = Headcount ratio of the poor household who deprived in multidimensional poverty index.
***Average intensity of poverty (A%) = Average proportion of indicators in which poor people are deprived. (*Source: Authors' compilation)*

Poverty Risk

Data also reveals that, in Sylhet city, households who have lived in a squatter or slum area, 11.67% households are vulnerable to poverty that is they are nearly about the experience of multidimensional poverty. And 13.33% households are experiencing extreme or severe poverty (Table- 3).

Table 3: Multidimensional Poverty

Poverty Cutoff (k)	Index	Value
K value = 20% - 33.33%	Percentage of households who are vulnerable to poverty	11.67%
K value = 33.33%	Percentage of poor households	75%
K value = 66.66%	Percentage of households who experience extreme or severe poverty	13.33%

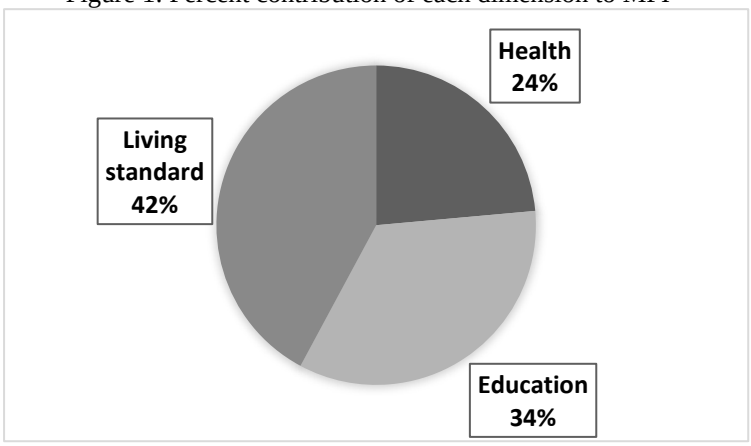
Source: Authors' Compilation

Shared Factors of MPI

Finding shows that, from three dimensions of MPI, living condition has the highest percent contribution (42%) to MPI (Figure 1). But, if we consider each indicator of MPI, we see that, years of schooling have the highest percent contribution (27%) to MPI (Figure 2).

From three dimensions of MPI, the percent contribution of living standard to MPI is 42%, the percent contribution of health to MPI is 24%, and the percent contribution of education to MPI is 34% (Figure 1). Hence, most of the households of Sylhet city who lived in a squatter or a slum are mostly deprived in living standard.

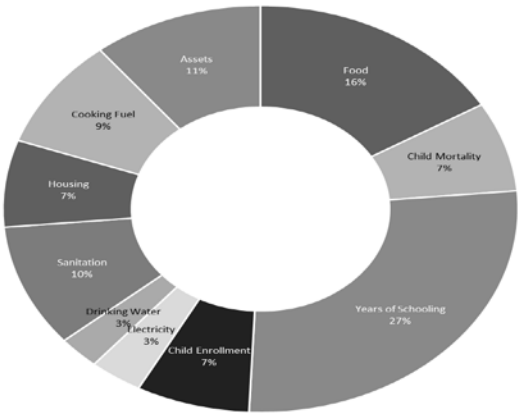
Figure 1: Percent contribution of each dimension to MPI



Sourse: Authors' Compilation

If we consider each dimension of MPI, we see that, the percent contribution of food security to MPI is 16%, the percent contribution of child mortality to MPI is 7%, the percent contribution of years of schooling to MPI is 27%, the percent contribution of child enrollment to school is 7%, the percent contribution of electricity to MPI is 3%, the percent contribution to drinking water to MPI is 3%, the percent contribution of sanitation to MPI is 10%, the percent contribution of housing to MPI is 7%, the percent contribution of cooking fuel is 9%, and the percent contribution of assets to MPI is 11% (Figure 2).

Figure 2: Percent contribution of each indicator to MPI

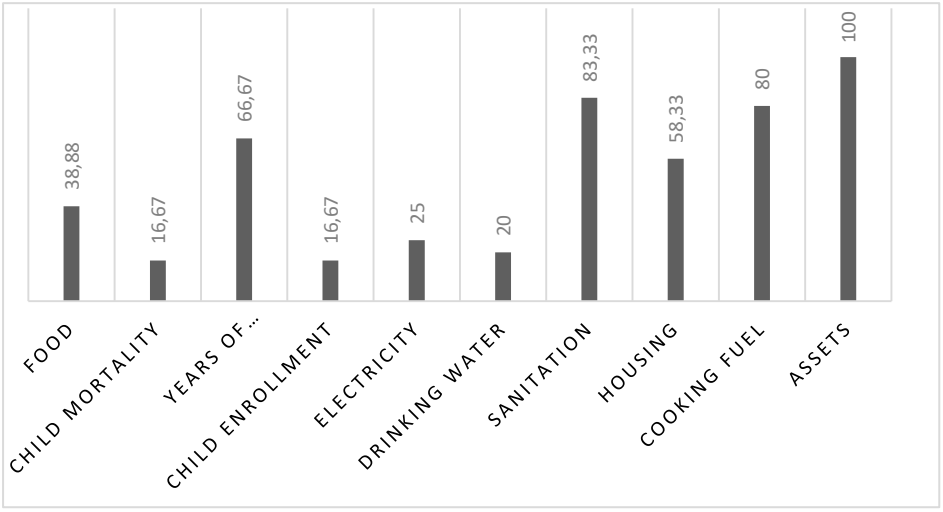


Source: Authors' Compilation

From the analysis, we also find the percent of deprivation on each indicator. In Sylhet city, households who have lived in a slum area, 38.88% households are deprived in food security, that is, those household heads could not afford enough food for 3 times a day for its members. 16.67%

households are deprived in 'child mortality' indicator, that is, those households have a situation of child mortality who died under five years of age. 66.67% households have no member who has completed at least 5 years of schooling, but 83.33% households are sending their children to school which is a good sign for improvement education sector. 25% household has no electricity/solar system in their house, 20% households are deprived of safe drinking water, 83.33% households are deprived in sanitation, 58.33% household are deprived in housing, 80% households are using wood and charcoal as their cooking fuel and the rest are using natural gas as their cooking fuel, and all the households are deprived in assets (Figure 3).

Figure 3: Percentage of Poverty Experience on Different Indicators



Source: Authors' Compilation

Data shows that, in Sylhet city, households who have lived in a slum area, 43.3% households have piped into dwelling water source, 43.3% households are using tube well water and 13.3% households have no safe drinking water facility (Table-4).

Table 4: Main source of drinking water for the household

	Percent
Piped into dwelling	43.3
Tube well	43.3
No facility	13.3
Total	100.0

Source: Authors' Compilation

Collected data reveal that, in Sylhet city, households who have lived in a slum area, 66.7% households have pit latrine with slab, 25.0% households have a pit latrine without slab, and 8.3% households have no facilities or using bush or field for toilet. 86.7% household sharing their

toilet with others and 13.3% household members didn't wash their hands after using the toilet (Table-5).

Table 5: Sanitation of the household

Sanitation of the household					
Sanitation facilities		Shared toilet		Washing hand after using toilet	
Type	Percent		Percent		Percent
Pit latrine with slab	66.7	Yes	86.7	Yes	86.7
Pit latrine without slab	25.0	No	13.3	No	13.3
No facilities or bush or field	8.3				

Source: Authors' Compilation

Collected data shows that, in Sylhet city, households who have lived in a slum area, 60% households are deprived in wall, 65% households are deprived in floor and 60% households are deprived in roof (Table-6).

Table 6: Deprivation on different indicators of housing

Deprivation on different indicators of Housing					
Wall		Floor		Roof	
	Percent		Percent		Percent
Deprived	60	Deprived	65	Deprived	60
Non-deprived	40	Non-deprived	35	Non-deprived	40

Source: Authors' Compilation

Collected data also reveal that most of the household (93.3%) have a mobile telephone, and half of the households have a television, but they are deprived in most of the indicators of assets. 11.7% households have a radio, 1.67% households have a refrigerator, 10% households have a bicycle, 8.3% households have a rickshaw and 3.3% households have a van (Table-7).

Table 7: Assets of the household

Assets of the household	Percent
Radio	11.7
Television	50
Refrigerator	1.67
Non-mobile/Mobile telephone	93.3
Bicycle	10
Motorbike	0
Car	0
Truck	0
Rickshaw	8.3
Van	3.3

Source: Household survey, 2015

But, during the in-depth interview very few respondents identify that health or living standard is poor as they feel it. Especially, one respondent

identifies the health problem as the cause of their poor economic condition. That is, physical disabilities or diseases influence her poverty experience. Jahanara Begum (pseudo name), 70 years old, a resident of Akhaliya slum, said that

> *"My elder son is a CNG driver. He has a problem of mirgi rog [epilepsies]. That's why, most of the day he cannot go to work. He also has minor mental disabilities. People can easily cheat with him… To maintain my family, my son's wife and I work as a housemaid."*

While, during the in-depth interview, most of them are considered the importance of education, and said that, if they had education they may overcome their situation. And, most of the family is sending their children to school. This information also supported by the household survey. Collected data reveal that most of the household doesn't have a single member who attends level V of their school education (66.67%), but their child enrollment in school is significantly high (83.33%), which reveals that most of the people are aware of the importance of schooling (Figure 3).

Respondents feel their poverty in the life course. Educational deprivations compel them to engage in odd jobs. For instance, Saiful Islam (pseudo name), 32 years old, a resident of Baghbari slum, work in a departmental store, said that,

> *"I have poverty. I am a poor man. […] I cannot manage a decent job, that's why my wages also little. […] My father has little money. That's why, I couldn't continue my study. If I had a better education, I may get a better job. […] I want to send my children to school, so that, they can get a better job"*

This experience of educational deprivations triggers parents for securing better educational attainments for their offspring. Another respondent, Sharina Begum (pseudo name), 39 years old, a resident of Amberkhana slum, working in a clinic as a cleaner, also work as a housemaid, lived with her two children. Her husband died several years ago. She said about her own poverty, that,

> *"[…] I sent my two children to school. I also send them to private tutors for better education. […] All the money I earned are spent to eat and to education of my children."*

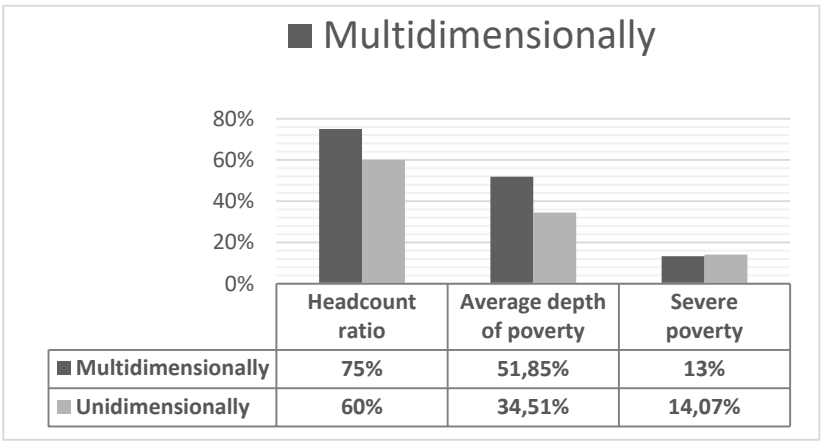
Self ranked non-poor status is also found the qualitative part of our inquiry. Albeit most of the respondents went through the experience of felt poverty, some of them have not considered themselves as poor. They are satisfied with their situation. For instance, Shohrab Uddin (pseudo name), 40 years old, a resident of Akhaliya slum, said that,

> *"[…] you have to be happy with what Allah gives to you. All the property Allah gives to you and He also takes it back from*

you. Though, I have many problems, but I am satisfied with my situation."

Comparing Unidimensional Poverty Index and Multidimensional Poverty Index:

Figure 4: Comparing Unidimensional Poverty Index and Multidimensional Poverty Index



Source: Authors' Compilation

If we compare both unidimensional and multidimensional poverty indexes we see that, household experience more multidimensional poverty than unidimensional poverty. While, 60% households are unidimensional poor, 75% households are multidimensional poor. Hence, a significant portion is not unidimensional poor, but they are multidimensional poor. This is also true for the average depth of poverty. The average shortfall in income from the poverty line for the population is 34.51%, and in a multidimensional poverty index the average intensity of poverty is 51.85%. It also indicates that, their average depth of poverty is very high in MPI. But, there is a slight difference in severe poverty. While, 13.33% households are severe multidimensional poor, 14.07% households are severe income poor (Figure 4).

Discussion

There have been conducted a very few works about unidimensional and multidimensional poverty targeted poor people in Sylhet city. Having a look at World Bank Data Archives, HIES 2010 survey of Bangladesh and OPHI country briefing June 2015, we find that research findings supported their findings, especially OPHI country briefing June 2015. However, we have to remember that, their findings are in the whole Sylhet region or for Bangladesh, while this research are conducted on poor people in Sylhet city.

Research finding shows that in Sylhet city, the unidimensional poverty rate among poor people is 60% and their poverty gap is 34.51%. While in 2010 43.3% people lived below poverty line of US $1.25 in Bangladesh (OPHI Country Briefing June 2015). Though there is an upward trend among poor people of Bangladesh, and in Sylhet region have least poverty rate (Prothom Alo, 2014, July 28), but from the above data it is very clear that, in slums or squatter area there is a high poverty rate.

On the contrary, finding shows that, in Sylhet city, people who lived in a squatter or a slum area, 75% people are multidimensional poor and their average depth of poverty is 51.85%. And if we take a look at OPHI Country Briefing June 2015, we see that, in Sylhet region, 61.9% people were multidimensional poor and their average depth of poverty was 53%. If we compare both data, we find that, though, there is somewhat variation in the percentage of poor people, but the average depth of poverty is very similar. From the finding, the value of MPI index is .389. While, OPHI Country Briefing June 2015 says that the MPI index value of Sylhet region is .328. Hence, the index value of poor people in Sylhet city is also slightly high.

Conclusion

This study gives us a holistic picture of poverty among poor populations by measuring both unidimensional or income based poverty and multidimensional poverty. Its qualitative parts also help us to understand how poor people perceived their own poverty.

From the study, we see that many women are contributing to their household economically, sometimes they also the main breadwinner of the household. There is also a significant variation in the percentage of poor households in unidimensional and multidimensional poverty measurements. In terms of income and expenditure 60% households are poor, but in MPI 75% households are poor. This variation show that, more people are multidimensional poor Sylhet's slum or squatter area. They lead an unhealthy and low living standard in their life. But, if we take a look at the average depth of poverty we see the real difference in unidimensional and multidimensional poverty measurement findings.

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